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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/574,335 | 05/19/2000 | Lakshmi Narasimha Ankireddipally | 15437-0511 | 8273 |

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| EXAMINER |
|---|
| HOANG, PHUONG N |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2126 | 9 |

DATE MAILED: 10/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

*-- The MAILING DATE of this communicati n appears n the c ver sheet with the c rrespondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _19 May 2000_ .

2a)☐ This action is **FINAL**.    2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _21 - 30_ is/are pending in the application.

⠀ 4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _21 - 30_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _19 May 2000_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

⠀ Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

⠀ If approved, corrected drawings are required in reply to this Office action.

12)☒ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

⠀ a)☐ All b)☐ Some * c)☐ None of:

⠀⠀ 1.☐ Certified copies of the priority documents have been received.

⠀⠀ 2.☐ Certified copies of the priority documents have been received in Application No. _____ .

⠀⠀ 3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

⠀ * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

⠀ a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Oath/Declaration*

The signatures of inventors are missing.

### *Drawings*

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they include the following reference sign(s) not mentioned in the description:

25, 27, 52, 82, 92, 95, 96, 97, and 98. A proposed drawing correction, corrected

drawings, or amendment to the specification to add the reference sign(s) in the

description, are required in reply to the Office action to avoid abandonment of the

application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

**Claims 21, 22, 26 – 29 are rejected under 35 U.S.C. 102(e) as being**

**anticipated by Berkowitz, US patent no. 6,529,921.**

**As to claim 21,** Berkowitz teaches a computer-implemented method for

performing a transaction comprising the steps of:

producing a transaction instance data structure (transaction with data structure,

col. 14 lines 30 – 65) indicating a plurality of operations (changes, col. 14 lines 30 – 65)

constituting a transaction; the transaction instance data structure indicating a linking of

the plurality of operations to indicate an operation performance order (order, col. 6 lines

15 – 40 and col. 15 ; the transaction instance data structure further indicating

conditioning logic data (commit or abort, col. 14 lines 30 – 65 and col. 15) for changing

the operation performance order such that the plurality of operations is capable of being

performed in more than one possible order; and

for each of the plurality of operations

producing an operation request message (inherent before sending message)

indicating input data for performing an operation; sending  (sending message, col. 5

lines 50 – 60 and col. 6 lines 35 – 45) the operation request message to a service

application to perform the operation using the input data; receiving (receiving message,

col. 6 lines 35 – 45) an operation response message from the service application

(resource manager, col. 5 lines 37- 49) indicating output data from the operation; and

determining a next operation to perform (evaluate the next active transaction, col. 15

lines 18 – 59) using the conditioning logic data and the output data of the operation

response message.

**As to claim 22,** Berkowitz teaches the computer-implemented method of claim

21 for performing a transaction wherein the conditioning logic data indicates at least one

of a mathematical expression, a function, and a variable data item (commit or abort, col.

14 lines 30 – 65 and col. 15); and wherein the step of determining the next operation to

perform using the conditioning logic data and the output data o1 the operation response

message includes using the output data (commit or abort, col. 14 lines 30 – 65 and col.

15) to evaluate the at lease one of the mathematical expression, the function, and the variable data item.

**As to claim 26**, Berkowitz teaches the computer-implemented method of claim 21 for performing a transaction further including receiving a transaction request message indicating a request to perform the transaction from a requesting application residing on a first computer included in a distributed network ; and wherein the service application resides on a second computer included in the distributed network (remote transactions, col. 6 lines 32 – 46).

**As to claim 27**, Berkowitz teaches the computer-implemented method of claim 26 wherein the distributed network is the Internet (Internet, col. 5 lines 1 – 20).

**As to claim 28**, this is the software claim of claim 21. See claim 21 for rejection.

**As to claim 29**, see claim 22 above.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Berkowitz, US patent no. 6,529,921 in view of Chen, US patent no. 6,507,856.**

**As to claim 23**, Berkowitz does not explicitly teach performing a transaction wherein the operation request message and the operation response message include extensible markup language (XML) tags indicating data items.

Chen teaches performing a transaction wherein the operation request message and the operation response message include extensible markup language (XML) tags indicating data items (XML, col. 3 lines 35 – 65).

It would have been obvious to apply the teaching of Chen to Berkowitz's system because it provides a technique to run the application on the Internet.

**Claims 24, 25, 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Berkowitz, US patent no. 6,529,921 in view of Srinivasan, US patent no. 5,893,108.**

**As to claim 24**, Berkowitz does not explicitly teach the computer-implemented method of claim 21 for performing a transaction wherein the transaction instance data structure is a directed acyclic graph (DAG) including a plurality of nodes; each operation being represented by a node; the nodes being arranged in the transaction instance DAG such that paths through the transaction instance DAG indicate the more than one possible order in which the plurality of operations may be performed; and wherein performing the transaction further includes traversing a path through the plurality of nodes of the transaction instance DAG.

Srinivasan teaches performing a transaction wherein the transaction instance data structure is a directed acyclic graph (DAG, col. 14 lines 28 – 60 and col. 1 lines 57

– 60) including a plurality of nodes (plurality of nodes, col. 14 lines 28 – 60); each operation being represented by a node; the nodes being arranged in the transaction instance DAG such that paths through the transaction instance DAG indicate the more than one possible order in which the plurality of operations (one or more operations, col. 14 lines 28 – 60) may be performed; and wherein performing the transaction further includes traversing a path through the plurality of nodes of the transaction instance DAG.

It would have been obvious to apply the teaching of Srinivasan to Berkowitz's system because it enables an object-oriented application system to access data in a relational database management system in an object-oriented manner.

**As to claim 25**, Berkowitz as modified by Srinivasan teaches the computer-implemented method of claim 24 for performing a transaction wherein the path through the graph is determined at runtime (run-time, col. 24 lines 28 – 35).

**As to claim 30**, see claim 24 above.

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (703) 605-4239. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (703)305-8498. The fax phone

number for the organization where this application or proceeding is assigned is (703)

872-9306.

   Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703)746-

7140.


Ph

September 23, 2003.


**JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100**